Chapter I

INTRODUCTION
1.1 GENERAL INTRODUCTION

"Children health tomorrow's wealth" is a very well known saying. In reality birth of a child occupies a special position in people life and children are generally loved all over the world. Unfortunately, a large number of children die every year in our country due to various kind of illness. Such child death always brings sorrow to the families and society at large.

The study of mortality deals with the effect of death on population. The United Nations and W.H.O. (cf. Bhende and Kanitkur, 1991) have defined death as the permanent disappearance of all evidence of life at any time after birth has taken place. A death can occur only after live birth.

According to United Nation (1984) "Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which after such separation, breathes or shows any other evidence of life, such as beating of heart, pulsation of the umbilical cord definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached to each product of such a birth is considered live-born".

Study of child mortality did gain its momentum all over the World after the celebration of the International year of child in 1979 by the United Nations. Since then quite a large number of studies on
mortality in general and infant and child mortality in particular have been undertaken.

The infant mortality rate (IMR) is considered to be a sensitive indicator of not only the health status of population but also the level of human development in the context of education, economic conditions, nutrition etc. In India in recent times there has been acceleration in the pace of decline in the infant mortality rate after a period of stagnation (ICPD, 1994).

The determinants of infant, child and adult mortality vary between geographical regions, cultural groups and also the countries of various economic statuses. Mosley and Chen (1984), have proposed in their analytical framework that all social and economic determinants of child mortality necessarily operate through a common set of biological mechanism, or proximate variables to exert an impact on mortality side by side, U.Ko. Ko (1987) among that the infant and children the risk of death is very closely related to the environment in which they grow. The death occur because of less medical facilities to deal with infection, inadequate food and lack of elementary hygiene.

Jain (1984) propose to distinguish between factors operating at the village, household and the individual-level. The individual-level factors are further divided into six categories according to the timing of their relevance (prenatal, natal and postnatal) and type of care (medical and curative).
Mahadevan et al. (1985) said that as mortality is comparatively high in India and is likely to vary in different social and cultural groups within and between states there is a need for undertaking mortality studies in different parts of the country.

The complex association between infant and child mortality and reproductive behaviour has long been recognized in demographic literature and research as involving a two-way process. On the one hand, high infant and child mortality has implication for the level of fertility in all societies, which operate through biological as well as societal mechanism. On the other hand, high level of fertility contributes, once again through biological as well as social processes, to maintaining high levels of infant and child mortality.

The rate of decline in under-five mortality levels in India since 1988 is promising. Steps like Universal Immunization Programme and Child Survival and Safe Motherhood Programmes are expected to hasten this trend. In spite of this hopeful change gender disparity still weighs heavily on the female child as female mortality rates are higher than those of the male child (ICPD, 1994).

Considering the importance of infant and child mortality in influencing parents ideas of family size and in shaping their attitudes to the adoption of family planning. It is essential that accurate estimates of existing infant mortality rates be made available to the administrators and planners of the nation's health and family
planning programmes. Since infants more than any other section of the environmental conditions for their survival it can be safely said that death of an infant is mostly due to poor health of the mother, in sanitary environment and inadequate medical care. Thus most of the infant deaths are preventable and could be avoided provided adequate health and medical care facilities are made available to the mothers and children (Kaur, 1978).

Higher age, longer duration of consummated married life, and higher number of pregnancies had significant and direct association with higher death rates among infants as well as children in the subsequent years of life.

Respondent's education, occupation, monthly income or level of living were generally negatively associated with infant and child mortality especially among the urban respondents including the industrial employees and their wives.

According to finding, higher mortality among male as well as female children was higher significantly associated with higher numbers of unplanned pregnancies, as well as the respondent's desire to have additional children. Thus experience desire to have additional children. Thus experience of child mortality does have inflationary effect on the total number of pregnancies, including accidental or unplanned pregnancies as compared to the reproductive ideals of the parents, who do not experience loss of any of their live born children.
Adoption of family planning had a consistently negative correlation with the level of infant and child mortality among all the respondent groups but this association did not turn out to be statistically strong enough to warrant any generalizations with regard to the possible influence of reduced infant and child mortality through improved health and medical facilities for the masses in India, on actual adoption of any of the birth control techniques being propagated through the nation family planning programme (Kaur, 1978).

Mahadevan (1986a) have suggested that to develop any effective family planning programme and nutrition, medical and public health policies one need to have data on various aspects of mortality particularly infant and child mortality.

Rele (1982) stated the survival and growth of any family or closed social group depends intrinsically upon the level of fertility in relation to mortality. The economically advanced countries were able to reduce their death rate to less than ten (10) per thousand largely by providing their people with adequate and wholesome food, pure drinking water, better hospital facilities, better sewage disposal and by taking proper measures to control various disease (Agrawal, 1988).

Looking at the slowness in the decline in India's infant mortality rate (Sandhya, 1991) opined that there are certain socio-cultural factors which play a more important role in determining the level of
infant mortality, than such factors as public health engineering, control of certain communicable diseases such as malaria, cholera etc. (Sandhya, 1991) also said that one hardly finds the details on socio-cultural and demographic characteristics of infant deaths from secondary sources.

The meaning of the word 'Life' here refers to "the life of infants and children. The literary meaning of 'affect' is to exert an influence 'and' to produce an effect' A variable in empirical research expected to have these characteristics. The influence of a variable can be either positive or negative. Most of the variables that we consider may have a positive influence in certain contexts and show a negative influence on other occasions Therefore the selection of the term life affecting is very appropriate.

Life affecting variables are first, broadly classified under the heading of situation and sequential events from the stage of polity-cum-policy through several other factors, institutions and stages of development of life, second, each sequential situation and event is further classified into one or more sub-sections of life-affecting variables depending upon the requirements of clarity, communication and empirical feasibility. For the present, a total of twelve broad categories of life-affecting variables (LAVs), and under each category several other specific factors that may be relevant at each stage of life process are represented. Each specific Life affecting variables is
mentioned in an already known nomenclature for facilitating. Since this list of variables is not complete by any means as our knowledge of the determinants of mortality is not complete, new research may generate additional knowledge, and broad section. Therefore has the provision to add newly emerging variable in future. Any commission made involuntarily now can also be added on to this provision.

Thus, for the classification of variables here, we have adopted a new terminology, namely. Life affecting variables for the entire category of all the determinants of mortality of course, the same term can also be used to describe the causal factors of morbidity as well as this term is fairly comprehensive and sufficiently adequate to explain the determinants of morbidity and mortality patterns in general (Mahadevan, 1986b).

In Madhya-Pradesh the socio-economic development is relatively low when compared to most of the states of India. The infant mortality continues to be higher than many other states. According to 1991 census, the infant mortality rate in the state of Madhya-Pradesh is 116 for male and 119 for female, whereas in national level the male infant mortality is 81 and female infant mortality is 80, which is much lower than the rate of Madhya-Pradesh. These indicate that the factors influencing infant and child mortality in rural Madhya-Pradesh should be looked in a broader perspective rather than confining to demographic and socio-economic factors. Keeping the
above in view an attempt will be made in the present study to deal
with the life affecting variables infant and childhood mortality among
the Kol tribal population of Satna district, Madhya-Pradesh.

1.2 REVIEW OF LITERATURE

Several researchers on mortality carried out so far in our
country, however, suffer from poor coverage of appropriate variables
and lack depth (Mahadevan, 1986). These studies were largely based
on data generated through census sample registration scheme,
hospital data and National sample surveys (Chandrasekhar, 1972,
Jain, 1974 and Agrawal, 1975). However, a few major studies have
been carried out in different parts of India generating primary data on
mortality (Wyon et al., 1971; Upadhyaya et al., 1974; Ruzicka et al.,
1973). These studies followed different methodologies and focused on
different variables depending upon the background of the researcher
and the aim of the study.

In the mid-1970s the view prevailed that high infant and child
mortality was a deterrent to fertility decline. Others, however, held
the view that mortality reduction might not be effective as a means of
reducing fertility (Preston, 1975). "Governments seeking to lower
mortality and to decrease population growth will be more likely to
achieve these objectives by concentrating on family planning
programme than by insisting on the primacy of health care services-
and they will not be sacrificing humanitarian goals by doing so" (Kunstadter, 1978).

By the time of the 1984 International Conference on population held at Mexico city, the latter view had prevailed. One of the consequences was increased emphasis on the effect of fertility and child-bearing patterns on infant and child mortality. As a result, several recommendation were adopted concerning the beneficial effect of healthful child bearing patterns on the health of mothers and children. These included specific recommendations on such issues as delay on marriage. Postponement of the commencement of child-bearing, and support for family planning both to increase intervals between births and to diminish higher birth order births.

All countries should give high priority to efforts to reduce the major childhood disease, particularly infectious and parasitic diseases and to prevent malnutrition among children, especially the girl child. Countries with indigenous people should achieve infant and under-5 mortality rate among their indigenous people that are the same as those of the general population (ICPD, 1994).

The infant mortality rate declined at 3.6 per cent year during 1987-92 compared to 2.2 per cent during the earlier five-year period, an increase of 63 per cent. This acceleration in the pace of decline in infant mortality rate was noticed in most states during 1987-92. It was quite high, at more than 5 percent year, in the states of Bihar
(5.8 percent), Gujrat (6.7 percent), Kerala (9.3 percent), Tamil Nadu (5.2 percent), and Uttar Pradesh (5.0 percent) and quite low (at less than 2 percent per year) in the states of Karnataka (0.5 percent), Madhya Pradesh (1.8 percent), Orissa (1.3 percent) and West Bengal (1.4 percent).

At the all India level, the pace of decline in the infant mortality rate is the same for males and females in both the quinquennial periods. But in specific states the IMR in 1992 for females was higher than males as was the case for Uttar Pradesh (102/91), Rajasthan (84/82), Panjab (58/53), Haryana (73/67) and Bihar (72/69). These are the states in which the status of the female child is considered to be low in the country.

In the country as a whole, in 1990, 125 children out of 1000 live births died before their fifth birthday. According to the finding, this rate has decline from the previous levels of 161 in 1983 and 137 in 1988. The decline during the period 1988-90 has accelerated considerably compared to the earlier five-year period 1983-1988. This is found to be true in most of the larger states in the country. The states which showed a decline of more than 5 per cent in the under five (U-5) mortality levels during 1983-88 were Kerala and Tamil Nadu. On the other hand, the states whose U-5 values have declined more than 5 per cent in the period 1988-90 are Andhra Pradesh, Bihar, Gujarat, Himanchal Pradesh, Kerala, Tamil Nadu and Utter
Pradesh. Thus, after 1988, there appears to be a very strong acceleration in the pace of decline in under five mortality levels throughout the country. With the initiation of the universal Immunization Programme (UIP) as well as the Child Survival and Safe Motherhood programme (CSSM), it can be expected that this acceleration in the pace of decline in child mortality levels would continue in the coming years.

The gender disparity in mortality levels noticed with regard to the infant mortality rates continue and widen, to the disadvantage of the female child. This can be noted with regard to the under five mortality rates. The under five-mortality rate for females is higher than that for males in most of the larger states except Andhra Pradesh, Karnataka, Kerala, Maharashtra and Tamil Nadu. The gap between the female and the male under five mortality rates in 1990 is very high in the states of Uttar Pradesh (180/145), Rajasthan (172/144), Madhya Pradesh (194/177) and Bihar (140/117), Surprisingly, even in states like Himachal Pradesh and Punjab which have relatively low under five mortality rates (91 and 84 respectively), mortality rates for female children are significantly higher than those for male children. There seems to be a clear north south divides in the gender bias in child survival (ICPD, 1994).

Social factors, such as poor hygiene, over-crowded housing, inadequate and faulty nutrition and lack of medical facilities for
maternal and child health care have been the major causes of infant and child deaths throughout the world. An amelioration of these factors in western society has taken place, leading to a decrease in infant and child mortality. However, even in western societies such as USA, studies have indicated that despite an overall decline in perinatal mortality rate it remain highest in the lower social classes (IPPF, 1970) when parity and social class are considered together, it is found that within each parity group. Perinatal mortality rises with descending social class. The safest social class and parity group is represented by the wife of a professional man (Class 1) having her second baby. The group which is most at risk is represented by the wife of the unskilled labour (Class 5) having her fourth and any subsequent child. There is almost a fourfold variation from the safest to the most risky class by parity group (IPPF, 1970). Assuming that socio-economic and demographic characteristics of India population may be more or less similar to those of European population in the first half of this century the following study may be relevant here.

Toylar (1976) observed that infant deaths by age of mother followed decreasing pattern. Age groups 15-19, 20-24, 25-29, 30-34 and 35+ accounted for mortality rates of 20.7, 38.8, 20.7, 10.9 and 8.9 respectively. Parities 1, 2, 3 and 4 accounted for 44.4, 33.8, 11.5 and 10.3 per cent of infant deaths respectively. Therefore the maximum concentration of infant deaths occurred at first parity
followed by second parity. Such a distribution can be misleading as the population exposed to the risk of infant deaths, namely live births may be different for different age groups and parities. Hence, the next analysis was directed towards infant mortality rate by age and parity etc. These are presented in according to finding extreme age groups such as 15-19 and 30+ have experienced the highest infant mortality rates while 20-24 and 25-29 age groups experienced the lowest. The rates for the age group of 15-19, 20-24, 25-29, 30+ were 199.6, 71.0, 52.0 and 80.7 respectively.

Similar findings have been reported in an earlier Greater Bombay Fertility Survey conducted by the International Institute for Population Studies, Bombay (Annual Reports, 1970-76).

Same other studies have also shown similar finding (Taylor, 1976). In these too, extreme parities experienced the highest infant mortality. The mortality rates for the first and second parity were 130.9 and 74.4. These were highest for the 1st and 4th parity. This was true for all the age groups and for each parity as well since age and parity are interlined this finding was expected.

Infant mortality rate has declined faster in Greater Bombay (Annual Reports, 1970-76) as compared to other studies. However, it is still quite high for extreme parities and certain age groups. Similar studies should be undertaken for older children, as their death is a more shocking experience than those of infant and hence would have
greater influence on family planning acceptance (Matthiessen, 1965). The health of the mother, care during pregnancy and delivery, the right feeding and proper care of the baby are factors affecting chances of an infant's survival. It has been found that males have higher infant mortality than females, particularly in the earlier age groups. The reason could be that females are biologically stronger at birth, but later on suffer due to social neglect.

Infant or child mortality is one of the intervening variables between fertility and family planning acceptance. The decision for accepting a family planning method depends more on the number of children surviving rather than on the children born (Gupta, 1976). Also it sense logical to expect that if a child does not survive, women would go ahead and have another child to make up for the loss. The cycle is a vicious one namely maternal neglect leading to higher levels of infant malnutrition/morbidity/mortality and this in turn leading to over compensation for child-loss (Array, 1960).

Infant and child mortality levels in the Bangladesh are among the highest in the world. It is estimated that one out of every five children in Bangladesh dies before reaching its fifth birthday (Kabob and Chowdhury, 1989). Further, of all child deaths, as many as a third are due to the six preventable childhood diseases namely diphtheria, whooping cough, tetanus, measles, polio and tuberculosis (Government of Bangladesh, 1985).
Some studies have revealed that in terms of availability of health services and health status Orissa, Bihar, Uttar Pradesh and Madhya Pradesh are most backward states of India.

Pandey and Tiwari (2000) studied the vital rates of four primitive tribes (Bharia, Birhor, Hill Korwa and Kamar) of Madhya Pradesh. They reported that birth rate does not vary much considerably between the tribes and also consistent with the birth rate of Madhya Pradesh. The death rate has been generally higher in these tribes compared to Madhya Pradesh. It has also been found that the higher death rates observed in primitive tribes are mainly due to higher infant mortality rate prevailing in these populations.

In an another study Pandey et al. (2001) examined the association between a few social and biological factors with the infant mortality level in Kamars a primitive tribe of Madhya Pradesh. They found that while the biological factors like age of mother and order of birth are found highly associated with the infant mortality, the factors like type of household, main occupation and household annual income have weak association.

Mitra (2000) studied health culture and health seeking behaviour among the Abujhmaria and Kamar of Madhya Pradesh. She found that poor health seeking behaviour among them is the result of social and living condition, illiteracy, ignorance, poor sanitation and lack of awareness of health education.
Pandey (2000) studied the differentials in socio-demographic characteristics of primitive and non-primitive Bharias of Madhya Pradesh. He observed that non-primitive Bharias are more aware about the Public Health Centre services and they use the services more frequently whenever they need. Due to tribal transformation the non-primitive Bharias have adopted a number of practices which are not prevailing in the primitive Bharias. For example, use of medicine for the problems of lactation, consultation with the doctor in problems of delivery, positive attitude towards antenatal and postnatal care etc. In another study Pandey (2002) found that literacy among the Bharia played a positive role to change their traditional customs regarding antenatal care, care during delivery, postnatal care and family planning practices.

Madhya Pradesh is one of those states of India which are known for their poor demographic and health situation. Reasons for poor demographic and health situation in the State may be traced in exceptionally high levels of fertility and mortality that have persisted over time and poor levels of social, economic and infrastructure development particularly development of health and family welfare services delivery infrastructure in rural areas.

1.3 STATEMENT OF THE STUDY

Thus, among above mentioned various topic and aspects of study the problem which is related to infant and childhood mortality
and various life affecting variables, infant and childhood affecting it, have in the recent year attracted the attention of the anthropologists.

It is well recognized that there are several biosocial factors, which play a vital role in the level of infant and child mortality. This part of anthropological research has gained added importance in view of the intense need in the context of the fast and accelerated population growth and to provide the people with better standard of living. Though a few of anthropological studies in this aspect have been conducted on some population group of India as well as in central province by different investigators at different times no such investigation has so far been undertaken among the Kol tribal population of Madhya Pradesh.

The study area for the proposed investigation comprises total geographical area of Satna district of Madhya Pradesh. District Satna is known to be the homeland of the Kol population group.

Present study deals with the infant and child mortality pattern and life affecting variables among the KOL of Satna district Madhya Pradesh.

1.4 NEED AND SIGNIFICANCE OF THE STUDY

India has a largest population of scheduled tribes. They account for 8.08 per cent of the total population. They are spread far and wide, but the largest concentration is in the Central India. Attention on tribal health, however, has not been adequate. This is
because of three reasons, firstly, there was a general belief that living close to nature they enjoyed an environment which is conducive to good health, secondly, the tribals have been regarded as not very amenable to western systems of medicine as they still depend very much on supernatural cures. The third reason possibly was the difficult terrain occupied by the tribals, where it is difficult to reach health services adequately. The Kol of Satna district, Madhya Pradesh represent more or less same situation.

The proposed study will emphasize on the generation of critical information required for effective planning and formulation of health care strategies among the Kol of Satna district. The investigation will lay emphasis on life affecting variables and other environmental correlates. The study addresses itself to the evaluation of health profile of infants and children prevalent diseases and health seeking behaviour etc. It has been planned that local health authorities will be closely involved in the collection of data on infant and child mortality, life affecting variable and screening of the affected families. The result of the study will be provided to the state and district health authorities for augmentation of preventive and promotional health care. It is expected that proposed study will find out those factors, which can solve the problem of poor health of the Kol and uplift the standard of life. In short, the present study will be useful in improving the health standard of the Kol of Satna district, M.P.
1.5 OBJECTIVES OF THE STUDY

The main objective of the study are as follows:

1. To understand the general demographic features among the Kol;
2. To find out the causes of infant and child mortality among the Kol;
3. To find out the rate of infant and child mortality among the Kol;
4. To find out the differences in infant and child mortality between sexes;
5. To find out the bearing of life affecting variables on infant and child mortality.
6. To suggest the measures for lowering the rate of infant and child mortality among the Kol.

1.6 DELIMITATION

Delimitation of the study are follows:

i. The study is limited to the district Satna of Madhya Pradesh.

ii. The study is limited on Kol tribe only.

iii. The study is limited on infant (0-1 year) and child mortality (1-4 years).

iv. The study is limited to infant and life affecting variables.

v. The study is limited to child mortality and life affecting variables
vi. The study is limited to reproductive performance of mother, fertility and mortality, causes of death and selection intensity.

vii. The study is limited ecological variables, cultural variables, family variables, marital variables, parental variables, conception and pregnancy variables, peri-natal variables, norms on child care and socialization and intervention variables.

1.7 PICTURESQUE OF THE STUDY:

For convenience the present study is divided into six chapter: